

54 Mbps Wireless Game Adapter

Model #:802EAG

User Manual

Ver 1.0

Solutions for the Digital Life™

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Introduction



Congratulations on becoming the owner of the *Action*tec 54 Mbps Wireless Game Adapter. The Adapter provides bridging capabilities between a wireless LAN (local area network) and one or more gaming consoles or other Ethernet-ready devices, such as printers or storage devices.

This manual shows you how to set up the *Action*tec 54 Mbps Wireless Game Adapter and customize its configuration to get the most out of the wireless capabilities of your gaming console. It's especially useful for playing online and multi-player games, all without the hassle of running cables. The Adapter is compliant with the 802.11g specification and requires a wireless router, access point, or compatible wireless device.



Package Contents

Make sure the following items came in this package:

- Actiontec 54 Mbps Wireless Game Adapter* with antenna
- Power Cord
- Yellow Ethernet Cable
- Utility CD (includes this manual)
- Quick Start Guide

* This product may also be referred to as "Ethernet Adapter."

Features

- · Fully compliant with 54 Mbps 802.11g standard
- · Backward compatible with 802.11b wireless networks
- Supports Infrastructure and Ad Hoc modes
- Supports 64- and 128-bit WEP security
- Detachable antenna
- · Web-based Configuration Utility and Windows Configuration Utility

System Requirements

For Configuration Utility

- IBM compatible-system with 200 MHz Pentium processor, 64 MB of RAM, CD-ROM drive, and available Ethernet network adapter
- Microsoft Windows 98SE, Me, 2000, XP
- TCP/IP network protocol installed

For Usage

- · Sony PlayStation 2 with Ethernet port, Microsoft Xbox
- Online or network-capable game
- 802.11b/g compliant wireless router (for online gaming)

Getting to Know the Adapter

This section contains a quick description of the Adapter's external features.

Front Panel

The Adapter's front panel contains two lights (LEDs): Power and Wireless.



Power Light

The Power light glows green when the Adapter is powered on, and remains off (or dark) when no power is present.

Wireless Light

The Wireless light glows solid green when the Adapter is connected to a wireless network, and remains off (or dark) when not connected to a network. When the Wireless light flickers, data traffic is moving across the wireless network.

Rear Panel

The Adapter's rear panel contains three ports (Power, Antenna [unlabeled], and Ethernet), as well as the Reset button.



Power Port

The Power port is used to connect the Adapter to an electrical wall outlet via the Power cord.

Antenna Port

The Antenna port (an RP-SMA connector) allows the user to connect various types of antenna to the Adapter. The antenna included in the Adapter package connects to the Antenna port.

Ethernet Port

The Ethernet Port is used to connect the Adapter to a computer or gaming console via the yellow Ethernet cable.

Reset Button

The Reset button is used to restore the Adapter's factory default settings. To do this, press the Reset button for 15 seconds.

Technical Support

*Action*tec Electronics prides itself on making durable, high-quality, high-performance products. If you need assistance, the *Action*tec Technical Support Department is available all day every day to provide professional support.

Actiontec Electronics, Inc.

760 N. Mary Avenue Sunnyvale, CA 94085

Technical Support

Phone: (USA) 1-888-436-0657 (UK) 0845-65-80411 E-mail: http://support.actiontec.com/email_support/support_form.php Internet: www.actiontec.com/support

Understanding the Wireless Network



Wireless local area networks (WLAN) perform the exact same functions as wired local area networks (LAN). Each device in the WLAN uses a data radio device to connect to the network, and all devices in the network share the same frequency and method for identifying wireless devices. Wireless local area networks differ from wired local area networks only in their operating mode. The two operation modes are Ad Hoc and Infrastructure.

Ad Hoc Mode

Ad hoc mode is a networking framework by which wireless devices or stations communicate directly with each other, without the need for an access point or wireless router/gateway.



Ad hoc mode is also called peer-to-peer mode or independent basic service set (IBSS). This mode is used when playing heat-to-head games, in which all the participants are playing against each other in the same room, or at least within range of the wireless network adapters.

Infrastructure Mode

Infrastructure mode is a networking framework where devices communicate with each other by first going through an access point or wireless router/gateway. Infrastructure mode lets wireless devices communicate with each other or with a wired network. With this type of network, and a router connected to the internet, online games can be played, with participants in the same room and/or across the internet.

Two types of service can exist while in infrastructure mode:

Basic Service Set (BSS) - An access point connected to a wired network and a set of wireless stations.

Extended Service Set (ESS) - A set of two or more basic service sets forming a single subnetwork.



Connecting the Adapter



This chapter details the steps involved in connecting the Adapter to a game console or computer, including installing the antenna and connecting the yellow Ethernet cable and black Power cord.

Note: The Adapter is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electronic equipment. All guidelines of this manual and of the computer manufacturer must be followed at all times to ensure the safe use of the equipment.

Connecting the Adapter

To connect the Adapter to a network:

1. Get the **Adapter** from the package.



2. Get the **yellow Ethernet cable** from the package. Plug one end of the cable in **Ethernet port** on the back of the Adapter. When seated properly, the cable will "click" in the port.



3. Plug the other end of the **yellow Ethernet cable** into the **Ethernet port** on the back of the game console (Xbox, PlayStation 2, etc.) or computer. When seated properly, the cable will "click" in the port.



4. Get the **black Power cord** from the package. Plug the smaller end into the **Power port** on the back of the Adapter.



3. Plug the larger end of the **black Power Cord** into an electrical outlet.



When connected properly, the Adapter's "Power" light glows solid green.

The Adapter is now connected to the network. For best performance, the Adapter should be placed in on a flat surface in a horizontal position with the antenna extended up, as shown below:



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Configuring the Adapter



This chapter explains how to configure the Adapter, including changing the IP address, setting up security, and creating a password. The Adapter can be configured through the Configuration Utility provided on the Utility CD (using a computer), or through an internet browser via the Web Configurator.

Using the Configuration Utility

The Configuration Utility allows the user to view or modify various settings of the Adapter, including configuring security, changing the IP address, and checking the link status.

Installing the Utility

To install the Configuration Utility

- 1. Insert the Adapter's Utility CD in the CD-ROM drive of a computer.
- 2. The installation should start automatically. If not, from the computer's desktop, click **Start**, then select **Run**. Type d:\Cl23.exe (where "d" is the drive letter of the computer's CD-ROM drive). Click **OK**.
- 3. When the following screen appears, click Finish.



The Configuration Utility is installed on the computer and ready to use.

Using the Utility

The Adapter must be connected via Ethernet cable to the computer with the Configuration Utility installed on it to use.

To start the Utility, from the computer's desktop, select **Start**, and from the menu that appears, select **Actiontec 54 Mbps Ethernet Utility**.



Link Information

The first screen that appears is "Link Information."

Actiontec 54Mbps Wirele	ss Ethernet Adapter
Link Information	Status
AP Settings	ESSID : Actiontec
IP Settings	IP Address : 192.168.0.240
Security	Mac Address : 00-03-2F-22-39-76
	Channel : 6
	WEP Security : Disable
	-Available AP
	AP Name Mac Address SSID WEP
	Wireless Access Pd 00-03-2F-22-39-76 Actionted No
	T
Copyright 2003 Wireless Ethernet Adapter Cor version 1.3	nfgurøtion Utility Apply Refresh Close

This screen displays information pertaining to the Adapter's wireless connection, including **ESSID**, **IP Address**, **MAC Address**, **Channel**, **WEP Securit**y, and **Available AP**. None of these settings can be changed from this screen.

At the bottom of this screen and the three that follow are three buttons: **Apply**, **Refresh**, and **Close**.

Apply Pressing this button causes all changes made to be saved, and a login window to appear. The Adapter's "UserName" and "Password" must be entered to make any changes active.

Refresh Pressing this button causes information in the screen to reflect current conditions.

Close Pressing this button causes the Utility window to close, and the Utility to quit, without saving changes.

AP Settings

Selecting **AP Settings** from the menu on the left side of the Utility window generates the "AP Settings" screen.

Actiontec 54Mbps Wirele	ss Ethernet Adapt	er	
Link Information	Basic Setting		
AP Settings	Mode	Infrastructure	C Ad-Hoc
IP Settings	ESSID	Actiontec	
Security	Channel	6 🔽	
Copyright 2003	Available AP AP Name Wireless Acces	Mac Address 5 PQ00-03-2F-22-39-71	SSID WEP Actiontativa y
Wireless Ethernet Adapter Co version 1.3	figuration Utility	Apply Refr	esh Close

Mode Select the option (**Infrastructure** or **Ad Hoc**) that corresponds to the type of wireless network to which the Adapter is connecting by clicking in the appropriate circle.

ESSID ESSID is the network name assigned to a wireless network. If changing the wireless network to which the Adapter connects, enter the name (ESSID) of the new network in this text box.

Channel Channel assigns the frequency band at which the Adapter communicates. In the United States, use channels 1-11. To change the channel, click the arrow next to the text box and select a channel number.

IP Settings

Selecting **IP Settings** from the menu on the left side of the Utility window generates the "IP Settings" screen.

Actiontec 54Mbps Wirel	ess Ethernet Adapter
Link Information	 Fixed IP Address DHCP Client
AP Settings	-IP Address Setting
IP Settings Security	IP Address 192 168 0 240 Subnet Mask 255 255 255 0 Gateway 0 0 0 0
	Available AP
	×.
Copyright 2003 Wireless Ethernet Adapter Co version 1.3	onfiguration Utility Apply Refresh Close

Fixed IP Address Select this option (by clicking in the appropriate circle) if the wireless network to which the Adapter is connecting requires the Adapter to have a fixed (or static) IP address. If Fixed IP Address is selected, enter the **IP Address, Subnet Mask**, and **Gateway** addresses in the appropriate text boxes.

DHCP Client If the wireless network to which the Adapter is connecting is set up with a DHCP (Dynamic Host Configuration Protocol) server, select the **DHCP Client** option by clicking in the appropriate circle.

Security

Selecting **Security** from the menu on the left side of the Utility window generates the "Security" screen.

Actiontec 54Mbps Wirel	ess Ethernet Adapter
Link Information	Data Encryption Auth. Mode Open Authentication
IP Settings	WEP Key Setting
Security	Key Length 64 bits
	Key 1 Key 2 Key 3 Key 4 Key 4
	Available AP
	AP Name Mac Address SSID WEP Wireless Access Pd 00-03-2F-22-47-46 LCtest No
Copyright 2003 Wireless Ethernet Adapter Co version 1.3	nfiguration Utility Apply Refresh Close

Data Encryption If the wireless network to which the Adapter is connecting has data encryption, click in the check box to activate

Authentication Select the type of authentication (**Open** or **Shared**) running on the encrypted wireless network to which the Adapter is connecting.

WEP Key Setting In this section of the screen, select the WEP (Wireless Encrypted Privacy) key type (**Hex** or **ASCII**) and length (**64 bits** or **128 bits**). Then, enter the keys needed to join the encrypted wireless network in the appropriate text boxes.

Using the Web Configurator

Once the Adapter has joined a wireless network, it can be further configured using the Web Configurator. To access the Web Configurator:

1. From a computer on the Adapter's network, open a Web browser. In the "Address" text box type:

```
http://192.168.0.240
```

then press Enter on the keyboard.



Note: If the IP address of the computer is not on the same subnet as the Adapter, the computer must be set up to use static IP.

2. A pop-up window appears. Enter the user name and password in the appropriate text boxes. The default user name is **admin**; the default password is **admin**.

Status

The first screen of the Web Configurator is the "Status" screen.



In this screen, various network parameters are displayed, both for the LAN (local area network) and the wireless internet connection.

This screen is informational only; no settings can be changed from here.

Basic Setting

Selecting **Basic Setting** from the menu at the top of the screen generates the "Basic Setting" screen.

0	Actiontec 51,0005 Wireless Ethernet Atiapter status <mark>Basic Setting</mark> P Setting Security Tools
Basic Setting	Mode @ Infrastructure ^ Ad-Hoc SSID Actionite: Site Survey Channel © @ (Domain: USA) Tx Rates Auto @ (Mbps) Authentication @ Open System ^ Shared Kay WEP Kay @ Disable ^ 64bits ^ 128bits Mode PEX @ € 1. C 2. C 3.
	C 4. Apply Cancel Help

In this screen, the user can change a number of wireless settings, including SSID and WEP keys.

Mode

Select the option (**Infrastructure** or **Ad Hoc**) that corresponds to the type of wireless network to which the Adapter is connecting by clicking in the appropriate circle. See chapter 2, "Understanding the Wirless Network" on page 5, for information concerning Infrastructure and Ad Hoc wireless networking.

SSID

SSID is the network name assigned to a wireless network. If changing the wireless network to which the Adapter connects, enter the name (SSID) of the new network in this text box.

Site Survey

Clicking **Site Survey** generates a pop-up window with a list of available wireless networks, their SSIDs, WEP information, and channels being used.

TX Rates

We recommend leaving the default setting, "Auto." If the wirless connection becomes unstable, selecting "Fixed" may alleviate the problem.

Authentication

Select the type of authentication (**Open** or **Shared**) running on the encrypted wireless network to which the Adapter is connecting.

WEP Key (Type)

Select the WEP (Wireless Encrypted Privacy) key length (**64 bits** or **128 bits**) by clicking in the appropriate circle. If no WEP key is needed, select **Disable**.

(WEP Key) Mode

Select the WEP key mode (Hex or ASCII) by clicking in the appropriate circle.

WEP Key (Strings)

Enter the WEP keys strings needed to join the encrypted wireless network in the appropriate text boxes. These hexadecimal keys must match exactly with the keys set up on the access point or router.

Click **Apply** to save any changes made.

IP Setting

Selecting **IP Setting** from the menu at the top of the screen generates the "IP Setting" screen.

0	Actionter 51 MDD5 Wireless Ethemer Adapter
IP Setting o	LAN IP C Obtain IP Automatically
	G Fixed IP Address [192 . [168 .]0
	Subnet Mosk [255 , [255 , [255 , [0 Gateway 0 , 0 , 0 , 0
	Apply Cancel Help

In this screen, the user can change the Adapter's IP address settings.

Fixed IP

Select this option (by clicking in the appropriate circle) if the wireless network to which the Adapter is connecting requires the Adapter to have a fixed (or static) IP address. If Fixed IP Address is selected, enter the **IP Address, Subnet Mask**, and **Gateway** addresses in the appropriate text boxes.

Obtain IP Automatically

If the wireless network to which the Adapter is connecting is set up with a DHCP (Dynamic Host Configuration Protocol) server, select the **Obtain IP Automatically** option by clicking in the appropriate circle.

Click **Apply** to save any changes made.

Security

Selecting **Security** from the menu at the top of the screen generates the "Security" screen.

	Actiontec Status Basic Settin	5 MbpS Wireless Ethemet Adapter
Security	Password	
	Administrator id:	admin
	AP Password New:	
	Confirm:	
		Apply Cancel Help

In this screen, the user can change the Adapter's password. To do so, enter "Administrator id" (user name) in the appropriate text box, then enter the new password in the "AP Password New" and "Confirm" text boxes. Click **Apply** to save any changes made.

Tools

Selecting Tools from the menu at the top of the screen generates the "Tools" screen.

0	Actionter 53 Mbp5 Wreless Etherner Adapter
Tools	Backup Settings Backup Restore Settings Bookup Restore
	Restore to default Default Settings Default Firmware Upgrade Browse
	Upgrade Help

In this screen, the user can change the save a set of configurations, restore a previously saved set of configurations, restore default settings, and upgrade the Adapter's firmware.

Backup Settings

After making changes in the Web Configurator screens, the user can save the configurations as a backup file. After making all desired changes, click **Backup**, then save the configurations on the computer's hard drive. These configurations can then be retrieved using "Restore Settings" (see below).

Restore Settings

To apply a previously saved set of configurations, either enter the directory path of the file in the appropriate text box, or click **Browse** to locate it. Once located, the configuration set can be activated by clicking **Restore**.

Restore to Default Settings

To apply the factory default settings to the Adapter, click Default.

Firmware Upgrade

*Action*tec periodically posts firmware upgrades to enhance the capabilities and boost the performance of the Adapter. Follow the on-screen instructions to upgrade the Adapter's firmware. To upgrade the Adapter's firmware, click **Upgrade** and follow the on-screen instructions.

Click **Apply** to save any changes made.

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Troubleshooting



This chapter contains information to help solve potential problems with the installation and operation of the Adapter. For further information, check the *Action*tec Web site at www.actiontec.com.

Troubleshooting

The Adapter won't connect to an access point or wireless router.

Using the Web Configurator (see page 16), perform the following steps:

- Make sure the operating mode is set to Infrastructure mode.
- Make sure the SSID is the same as that of the access point/wireless router. Many of these devices require all connecting devices to match the letter case.
- From the Security screen, make sure all of the WEP settings match the WEP settings of your access point/wireless router.

Change the Adapter's IP address.

There are two methods to change the Adapter's IP address.

- Open the Adapter's Configuration Utility (see page 12). From the IP Settings screen, activate Static IP Address by clicking in the appropriate circle, then enter the IP address in the text boxes below.
- If you encounter problems, power the Adapter off and on again, or push the Reset button. Then try to change the IP address again.

The Configuration Utility won't detect the Adapter.

Make sure the Ethernet cable and Power cord are properly connected and the green Power and Ethernet lights are on.

The Configuration Utility won't open.

Make sure a network adapter is installed on the computer.

The Configuration Utility won't recognize my password.

The password is case-sensitive. Make sure you are using the correct case(s) when entering the password.

If you forget your password, push the Adapter's Reset button for 15 seconds. This will reset the user name and password to the default settings (user name: admin; password: admin); however, all the Adapter's settings will be reset to the factory defaults as well.

The changes made through the Configuration Utility are not active.

Click Refresh in the Configuration Utility. If the new settings aren't displayed, unplug the Power cord from the Adapter, then plug it back in again. Click the Refresh button again.

Frequently Asked Questions

How far can I be from an access point and maintain a connection?

The range depends on the environment. Indoor range is usually about 90 meters (300 ft.); outdoor range can reach up to 533 meters (1750 ft.).

How fast is the wireless network?

The rated speed of the wireless network under optimal conditions is 54 Mbps. The speed varies, however, depending on distance from the access point, gateway, or router and the amount of attenuation (physical barriers such as walls, glass, etc.) the wireless signal must go through.

I have Windows XP and I set up the Adapter according to the instructions, but I'm not able to get online. What should I do?

The Ethernet adapter installed in your computer may not have picked up an IP address. Reboot the computer to get a connection.

Can I use the Adapter to connect to an 802.11b access point?

Yes, the Adapter can connect to an 802.11b access point.

Glossary



802.11b

A wireless networking standard specifying a maximum data transfer rate of 11 Mbps, operating at the 2.4GHz frequency, and providing WEP for security.

802.11g

A wireless networking standard specifying a maximum data transfer rate of 54 Mbps and operating at the 2.4GHz frequency. It also provides backward compatibility with 802.11b devices, and WEP for security.

Default Gateway

A router used to forward all network traffic not addressed to a station within the local subnet.

DHCP (Dynamic Host Configuration Protocol)

A protocol that enables network administrators central management and assignment of Internet Protocol (IP) addresses within a network.

ESSID (Extended Service Set Identifier)

A unique identifier for a wireless network. Also known as "SSID."

IP Address

A series of four numbers separated by periods identifying a unique Internet computer host.

ISP (Internet Service Provider)

A business that allows individuals or businesses to connect to the Internet.

LAN (Local Area Network)

A group of computers and devices connected together in a relatively small area (such as a house or an office). A home network is considered a LAN.

MAC (Media Access Control) Address

The unique hardware address of a device connected to a network.

Router

A central device that manages the data traffic of the network.

Subnet Mask

A set of four numbers configured like an IP address used to create IP address numbers used only within a particular network.

SSID

See "ESSID."

TCP/IP (Transmission Control Protocol/Internet Protocol)

The standard protocol for data transmission over the Internet.

WAN (Wide Area Network)

A network that connects computers located in separate areas, (i.e., different buildings, cities, countries). The Internet is a WAN.

WEP (Wired Equivalent Privacy)

A security mechanism based on a 64-bit shared key algorithm, as described in the IEEE 802.11 standard.

WLAN (Wireless Local Area Network)

A group of computers and other devices connected wirelessly in a small area.

Specifications

7

General

Model Number

802EAG (54 Mbps Wireless Game Adapter)

Standards

IEEE 802.3x (10BaseT, full duplex capable) IEEE 802.3u (100BaseTX, auto negotiation) IEEE 802.11b/g (Wireless)

LAN

10/100 RJ-45 switched Ethernet port

Security

Open, Shared, 64-, 128-bit

Speed

LAN Ethernet: 10/100 Mbps auto-sensing Wireless: 802.11g 54 Mbps optimal (see "Wireless Operating Range" for details)

Cabling Type

Ethernet 10BaseT: UTP/STP Category 3 or 5 Ethernet100BaseTX: UTP/STP Category 5

Wireless Operating Range

Indoors

Up to 91 M (300 ft.)

Outdoors

Up to 533 M (1750 ft.)

Topology

Star (Ethernet)

LED Indicators

Power, Wireless

Environmental

Power

External, +5V DC, +/- 5%@2A max

Certifications

FCC part 15, CE

Operating Temperature

0° C to 55° C (32° F to 104° F)

Storage Temperature

-20° C to 70° C (-4° F to 158° F)

Operating Humidity

5% to 98% (non-condensing)

Storage Humidity

5% to 90% (non-condensing)

Note: Specifications are subject to change without notice.

Notices

Regulatory Compliance Notices

Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by implementing one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected;
- · Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by A*ction*tec Electronics, Inc., may void the user's authority to operate the equipment.

Declaration of conformity for products marked with the FCC logo – United States only.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;

- **2.** This device must accept any interference received, including interference that may cause unwanted operation.
 - Note: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

For questions regarding your product or the FCC declaration, contact:

Actiontec Electronics, Inc. 760 North Mary Ave. Sunnyvale, CA 94086 United States Tel: (408) 752-7700 Fax: (408) 541-9003

Miscellaneous Legal Notices

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All other names are the property of their respective owners.

Limited Warranty

Hardware: *Action*tec Electronics, Inc., warrants to the end user ("Customer") that this hardware product will be free from defects in workmanship and materials, under normal use and service, for twelve (12) months from the date of purchase from *Action*tec Electronics or its authorized reseller.

*Action*tec Electronics' sole obligation under this express warranty shall be, at *Action*tec's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, *Action*tec Electronics may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of *Action*tec Electronics, Inc. Replacement products may be new or reconditioned. *Action*tec Electronics warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

Software: Actiontec Electronics warrants to Customer that each software program licensed from it will perform in substantial conformance to its program specifications, for a period of ninety (90) days from the date of purchase from Actiontec Electronics or its authorized reseller. Actiontec Electronics warrants the media containing software against failure during the warranty period. The only updates that will be provided are at the sole discretion of Actiontec Electronics and will only be available for download at the Actiontec Web site, www.actiontec.com. Actiontec Electronics' sole obligation under this express warranty shall be, at Actiontec Electronics' option and expense, to refund the purchase price paid by Customer for any defective software product, or to replace any defective media with software which substantially conforms to applicable Actiontec Electronics published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. Actiontec Electronics makes no warranty or representation that its software products will meet Customer's requirements or work in combination with any hardware or applications software products provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third-party products listed in the Actiontec Electronics software product documentation or specifications as being compatible, Actiontec Electronics will make reasonable efforts to provide compatibility, except where the non-compatibility is caused by a "bug" or defect in the third party's product or from use of the software product not in accordance with Actiontec Electronics published specifications or user guide.

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> Return the product to: (In the United States) *Action*tec Electronics, Inc. 760 North Mary Avenue Sunnyvale, CA 94085

Actiontec Electronics shall not be responsible for any software, firmware, information, memory data, or Customer data contained in, stored on, or integrated with any products returned to Actiontec Electronics for repair, whether under warranty or not.

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